

IN THE CLAIMS

The following is a current listing of claims and will replace the prior versions and listings of the following claims in the application. Please amend the claims as follows in accordance with 37 CFR § 1.173.

26. (Once Amended) One system unit of a plurality of system units for a multiprocessor computer including:

- a global address router for transferring addresses originating in any of said system units to all others of said system units, each address of said addresses having a source identifier indicating which of said plurality of system units had originated said each address[.];

- a global data router for transferring data from any of said system units to all others of said system units[.];

- a control-signal distributor for communicating a plurality of control signals from any of said system units to all others of said system units for affecting the operation of all of said system units in response to conditions occurring in said any system unit[.];

- a domain configurator for electronically dividing said computer into a plurality of software-configurable hardware domains each comprising an arbitrary subset of said system units independently of any physical reconnection of said system units within said computer[.];

- a computer controller responsive to said commands for specifying to said domain configurator which of said system units belong to each of said hardware domains[.];

- a domain filter coupled to all of said system units for electronically inhibiting at least some of said control signals originating in those of said system units within one of said domains from affecting certain of said system units outside said one domain, said one system unit comprising:

- at least one subsystem connected to said global address router for coupling said addresses between said subsystem and any other of said system units, and connected to said global data router for transferring transaction data between said subsystem and any other of said system units, said subsystem being taken from the group consisting of:

- a processor subsystem for executing transactions[.];

- a memory subsystem for storing data within said global range[.]; and

- an input/output subsystem for communicating with input/output adapters;

at least one generator of said control signals coupled to said distributor;
at least one receptor of said control signals;
a domain writable mask register receiving from said computer controller a value representing which of said plurality of system units belong to the same domain as said one system unit; and
a comparator coupled to said domain mask register for producing an inhibiting signal when said source identifier indicates that said each address did not originate within said same domain, said inhibiting signal being coupled to said at least one subsystem so as to render it unresponsive to said each address.

40. (Thrice Amended) A multiprocessor computer having hardware domains variably configurable by commands from an operator, said computer comprising:

a plurality of separate system units for performing sequences of transactions, each including at least one of:

a processor unit for generating addresses within a predetermined global range,

a memory unit for storing data at a set of addresses within said predetermined global range, and

an input/output adapter for generating and/or receiving a set of addresses within said predetermined global range;

a global address router coupled to said system units for transferring addresses generated in any of said system units to others of said system units;

a global data router for transferring data from any of said system units to others of said system units;

a control-signal distributor for communicating a plurality of control signals from any of said system units to others of said system units for affecting the operation of all of said system units in response to conditions occurring in said any system unit;

a domain configurator for electronically dividing said computer into a plurality of software-configurable hardware domains each comprising an arbitrary subset of said system units independently of any physical reconnection of said system units within said computer; and

a domain filter coupled to all of said system units for electronically inhibiting at least some of said control signals originating in those of said system units within one of said domains from affecting certain of said system units outside said one domain, wherein said domain filter is coupled to at least one of said global routers for inhibiting transactions on said one global router originating in those of said system units within one of said domains from being received in certain of said system units outside said one domain.

53. (Twice Amended) A multiprocessor computer having hardware domains variably configurable by commands from an operator, said computer comprising:

a plurality of separate system units for performing sequences of transactions, each including at least one of:

a processor unit for generating addresses within a predetermined global range,

a memory unit for storing data at a set of addresses within said predetermined global range, and

an input/output adapter for generating and/or receiving a set of addresses within said predetermined global range;

a global address router coupled to said system units for transferring addresses generated in any of said system units to others of said system units;

a global data router for transferring data from any of said system units to others of said system units;

a control-signal distributor for communicating a plurality of control signals from any of said system units to all others of said system units for affecting the entire operation of all of said system units in response to error and status conditions occurring in said any system unit;

a domain configurator for electronically dividing said computer into a plurality of software-configurable hardware domains each comprising an arbitrary subset of said system units independently of any physical reconnection of said system units within said computer;

a domain filter coupled to all of said system units for electronically inhibiting at least some of said control signals originating in those of said system units within one of said domains from affecting certain of said system units outside said one domain.

61. (Once Amended) The computer system according to claim 60, wherein said domain filter further comprising:

a plurality of cluster registers each identifying to which cluster each of said plurality of system units belongs, wherein said plurality of cluster registers is responsive to a current one of said transactions;

a second connection for transmitting a valid-transaction signal to each of said plurality of system units belonging to a given cluster for any of said transactions originating from one of said plurality of system units belonging to said given cluster.